
CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD DEGREE OF BACHELOR OF SCIENCE IN
BIOCHEMISTRY**

BMET 221: PATHOPHYSIOLOGY

STREAMS: BSC BIOMED

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 4/12/2019

11.30 A.M – 1.30 P.M

INSTRUCTIONS

Answer question one and any other two questions

QUESTION ONE (30 MARKS)

1. (a) Cell adapt to their environment to escape and protect themselves from injury. Outline four (4) most significant adaptive changes that can occur in cells. [4 marks]
- (b) Differentiate between benign and malignant tumors. [4 marks]
- (c) Describe any three (3) types of necrosis that can occur in tissues as a result of cellular injury. [6 marks]
- (d) Explain how an increase in capillary hydrostatic pressure and a decrease in capillary oncotic pressure cause edema. [6 marks]
- (e) Describe the two general types of disorders associated with of target cell insensitivity to hormones. [4 marks]
- (f) Describe the pathophysiology of pernicious Anemia. [6 marks]

QUESTION TWO 20 MARKS

- (a) Describe the pathophysiology of type 1A diabetes mellitus. [10 marks]
- (b) Describe the mechanisms through which obesity contributes to the development of insulin resistance. [10 marks]

QUESTION THREE 20 MARKS

- (a) Describe the clinical manifestations of the different types of aneurysms. [10 marks]
- (b) Describe the characteristics of the various types of emboli based on their occurrence. [10 marks]

QUESTION FOUR 20 MARKS

- (a) Describe cachexia as a clinical manifestation of cancer. [10 marks]
- (b) Describe the different forms of chemotherapy as a treatment procedure for cancer. [10 marks]
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